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Dr. W. H. ...



STEM RUST AND BARBERRY NEWS

Issued by

Office of Barberry Eradication

Volume I

June 25, 1930

Number 4

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Bureau of Plant Industry
U. S. Department of Agriculture

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FIELD ACTIVITIES

Field work is now underway in each of the States of the Barberry Eradication area. Doctor Caldwell has started two squads of local labor in the Black Earth escaped area and will soon start the remainder of his field force in areas of escaped bushes in southeastern Wisconsin.

Preparation is being made for the adoption of a uniform filing system in the State Offices with special attention being given to records of fiscal matters. Each of the Leaders visited have offered suggestions for uniform files and have expressed their desire to adopt a desirable system at an early date.

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Plans have been completed for continuing barberry eradication activities in Montana for the coming summer with James T. Bradbury acting as Mr. Mayoue's assistant leader in that State. Appointments have been asked for twelve additional field agents and tentative plans have been made for carrying on a semi-intensive second survey in Fergus, Yellowstone, and Carbon Counties.

An agreement has been reached with Dean F. B. Linfield and Director J. C. Taylor of Montana State College whereby Prof. H. E. Morris, Experiment Station Botanist will devote a small portion of his time to barberry eradication work and in doing so will act as resident representative of the Office of Barberry Eradication. Mr. Morris will handle urgent requests for information regarding the campaign in Montana, advise with Mr. Mayoue regarding territory to be surveyed, selection of field men, and similar matters that otherwise would require Mr. Mayoue's presence for extended periods were a local representative not retained. The administration of the campaign in Montana will be handled from the District Office at Fargo, N. Dak.

W. L. Popham.

CONTROLLER'S DECISIONS

(A-31036)

9 Comp. Gen. 432

CONTRACTS - MISTAKE - CANCELLATION - READVERTISEMENT

Where, in requesting bids for the furnishing of steel to the Government, the wrong blue prints were sent to some of the bidders and the contract was awarded to one of the bidders to whom wrong blue prints had been sent, it should be canceled and the matter readvertised in order that bidding may be on common ground.

(A-30991)

9 Comp. Gen. 446

CONTRACTS - MISTAKE IN BID

Where bids were requested for the furnishing of hardware for barrack chairs (seat bolts) and at the time of opening and consideration of the bids there was such a difference in the amount of the bids as to indicate a possible mistake in the low bid, and upon being asked to verify its bid, the bidder alleged mistake but furnished no evidence to establish the mistake and the bid was accepted and delivery made, payment therefor being made at the bid price, there is no authority for payment of any amount in excess thereof.

The fact that the contractor elected to act on the department's instructions to make delivery of the supplies bid upon and to present a claim for any amount to which it believed itself entitled in addition to the contract price does not require or authorize allowance of the claim. In electing to follow such procedure the contractor removed from consideration the question as to whether under the facts and circumstances it could have been permitted to withdraw its bid.

(A-31224)

9 Comp. Gen. 448

LEAVES OF ABSENCE - MILITARY

In computing the 15 days of leave without loss of pay, time, or efficiency rating, authorized by the act of February 28, 1925, 43 Stat. 1090, to officers and employees of the United States or of the District of Columbia, who are members of the Naval Reserve, Sundays and holidays occurring within the period of absence should be included.

(A-31168)

9 Comp. Gen. 449

COMPENSATION - DISMISSAL

The falsification of expense accounts by a postal employee constitutes such a violation of the oath of office and breach of contract of employment as to cause the forfeiture of compensation due for periods prior to date of suspension and dismissal.

(A-31318)

9 Comp. Gen. 453

SUBSISTENCE - PER DIEMS - TEMPORARY DUTY AT PLACE OF RESIDENCE

Where an employee resides at a place other than his regular duty station, going back and forth between his place of residence and place of duty each day he performs service at said place, an assignment to temporary duty at the place of his residence could not operate to place him in a travel status so as to authorize payment of a per diem in lieu of subsistence while on such temporary duty.

EPIDEMIOLOGY

(Reported by Miss Laura Hamilton)

Stem rust away from known barberries was first observed in Minnesota on June 16. One pustule only was found on wheat in McLeod County, although a number of fields in Meeker and McLeod Counties were examined. Wheat in this territory was in the boot. On June 11, Mr. Melander found no stem rust in the nursery at Waseca or in fields between Rochester and St. Paul. In South Dakota the first pustule to be observed was found, also on the 16th, on wheat in Aurora County by Mr. Frandsen. The extent of the infection is being determined by Mr. Butler in South Dakota, Mr. Ukkelberg in west-central Minnesota, and by Mr. Eide in the southern part of the State. In view of the recent cool weather it seems not unlikely that the amount of the first infection to appear will be relatively small.

In Nebraska by the middle of June stem rust had appeared on wheat in much of the eastern section. On the 16th between Sioux City, Iowa, and Yankton, South Dakota, Mr. Butler found infection in all fields of wheat examined, but there was no more than a pustule on any plant, and only a few culms per field were rusted. In western Nebraska between June 11 and 13, Mr. Lungren was unable to find stem rust. He stated that winter wheat was in milk, and that spring grain along the North Platte was approaching the boot stage. In south central Nebraska, between Webron and Kearney, according to Mr. Ukkelberg, a well scattered primary infection was evident on wheat on June 14, in addition to some secondary infection in Nuckolls and Thayer Counties. Grain was in good condition, and for the most part in flower. Only one field of oats in this section was found infected with stem rust. Weather conditions at the time these observations were made were favorable for rust development.

It may be of interest to know that pycnia only were produced as a result of artificial inoculation on Berberis canadensis from Indiana. This species usually is considered as susceptible as B. vulgaris, and plants of canadensis which Mr. Leer recently sent to Dr. Cotter look like the B. canadensis which grows in Virginia, in various botanical gardens, and in Europe. In Virginia severe local epidemics are caused

by rust spread from bushes of this species. In Indiana, however, Mr. Leer states that he has never seen it rusted. As a result of inoculation in the greenhouse at St. Paul with both the secalis and tritici varieties of stem rust, pycnia but no accia were produced, although check plants of B. vulgaris reacted as usual. According to Dr. Cotter, this is another illustration of the fact that plants of the same species of barberry may differ in resistance to stem rust attack although identical in outward appearance.

EASTERN REGION

Ohio - 8 East Broad Street, Columbus - Harry Atwood

On June 9, Mr. Meier of the Washington Office, accompanied by Messrs. Offord and Wyckoff of the Office of Blister Rust Control, visited the Maumee area for the purpose of making preliminary investigations relative to improved methods of killing barberries by the use of chemicals. Experiments are to be made on barberries growing in swampy grounds, on hillsides, and along limestone cliffs.

On June 16 and 17 we held our annual training school and conference for barberry workers at the Holden Hotel, Dayton. We were pleased to have on our program Mr. O. L. Cunningham, County Agricultural Agent of Montgomery County; Dr. W. G. Stover, in charge of Plant Pathology at Ohio State University; Mr. E. C. Cotton, Chief of the Bureau of Plant Industry, Ohio Department of Agriculture; and William Cowgill, an Ohio farmer who is an ardent believer in the barberry eradication project.

The following list of men make up the Ohio personnel: Dr. W. G. Stover and Clark W. Horton are engaged in rust epidemiology studies, the running down of barberry leads which have accumulated in the office, and in the collection of data on experimental plots which are located in the State.

Mr. Charles O. Violet is making a study of the nursery situation to determine the prevalence of rust susceptible varieties of barberries being grown for distribution by Ohio nurserymen.

The remainder of the men are working in Montgomery County on regular survey. Mr. George Holmes and his squad are stationed at West Carrollton while working Jefferson Township. Mr. Charles R. Tom and his squad are stationed at Dayton while finishing the survey of that city. This squad reports that it has found and dug barberries on 120 different properties since June 1. Mr. Earl E. Garwick and his squad are stationed at Germantown while conducting survey activities in German Township.

Within the last two weeks stem rust has been found in wheat fields in Warren, Greene, and Montgomery Counties. These counties are located in the southwestern part of the State. This section of the State has suffered from hot weather and drought since April. Because of these conditions it is not likely that black stem rust will do much damage in these counties this year.

Leaf rust is very prevalent in the southern part of the State but to date very little can be found in the northern half of the State.

Indiana - Agricultural Experiment Station, La Fayette - Wayne E. Leer

On June 11, between Osgood and Versailles in Ripley County, a few pustules of stem rust were found on wheat. Barberries are not known to be growing in this vicinity.

The field men working in an area of escaped barberries near Aurora in Dearborn County found more than 50 bushes during the week of June 9 to 14. Not enough infection was found on the bushes to send in a collection for identification. In fact, only 3 leaves with one very small aecium on each leaf were found.

The field men working near Crandall in Harrison County found about 10 bushes during the week June 9 to 14. Earlier in the spring about 30 bushes were destroyed in this area which had been reported by Richard Sparks, a school boy. These bushes showed some infection. A trace of stem rust on wheat was found one-half mile from the infected bushes on June 12. More rust was found in this field than in any of the fields examined in southern Indiana during the week.

Infected barberry bushes were found at Madison in Jefferson County on June 12. This location is one-half mile from the Ohio River. However, the infected bushes at Crandall in Harrison County are probably 25 miles further south than the ones at Madison.

On June 10, the newspapers reported the first wheat cut in Indiana.

Illinois - Box 72, Post Office Building, Urbana - Robert W. Bills

The annual barberry school was held at Urbana on June 12 when 34 State and federal employees engaged in barberry eradication were present. The day was spent in discussions of the campaign, survey methods, fiscal matters, field trip, and addresses by members of the staff of the College of Agriculture.

Messrs. Offord, Wyckoff and Fletcher spent June 6 and 7 in northern Illinois with the Barberry Leader visiting areas of escaped barberries.

The report of black stem rust of wheat in southern Illinois, stated in the previous report, proved to be erroneous. Leaf rust is found in great abundance in southern Illinois but stem rust infection is lacking. Barberry bushes in northern Illinois show moderate to heavy infection.

Michigan - Agricultural College, East Lansing - Francis B. Powers

The squad working in Allegan County has destroyed 2,382 bushes and 6,019 seedlings since June 1. Among the bushes killed was one which would probably have soon been buried by the drifting sand of a large dune and two bushes that were growing from tree stumps in a pear orchard.

Thirty men have been selected for field work during the summer season. These men will attend a conference at East Lansing June 23, following which they will leave for the field.

Aerial infection toward the southwestern part of Michigan, now being surveyed, is very light, and the uredinial stage on wheat and rye may be found in traces not yet emerged. Thus far no uredinial infection has been found on oats.

The weather was cold and rainy the first week of the month but has since been more suitable for rust spread.

Wisconsin - State Capitol Annex, Madison - Ralph M. Caldwell

The first field activities in eradication work began June 16 when the work was opened at Black Earth with a crew of local labor. Mr. Adolph Hendrickson, who will serve as foreman of that group, went on duty June 9 and has completed the organization and plans for the summer.

Mr. S. N. Wyckoff and Mr. H. R. Offord of the Blister Rust Office spend June 4 and 5 in Wisconsin with Mr. Donald G. Fletcher and the Barberry Leader observing our eradication problems with the object of selecting suitable plots for chemical eradication investigations. Mr. Fletcher met the group at Madison and accompanied Mr. Wyckoff and Mr. Offord into Illinois and States east.

Mr. Noel F. Thompson, pathologist in the Wisconsin State Department of Agriculture and Markets, and formerly in charge of chemical eradication in the barberry eradication campaign for the U. S. Department of Agriculture, accompanied the group to confer with Mr. Offord on problems relative to chemical eradication of the barberry.

Rusts are slow in appearing in Wisconsin grain fields this season. Leaf rust of rye and wheat may be found only in very slight traces, while the uredinial stage of neither crown rust of oats nor black stem rust have yet been found.

WESTERN REGIONMinnesota - University Farm, St. Paul - Leonard W. Melander

The beginning of the second survey was postponed from June 16 to June 23. Our field activities at the present time are concentrated on obtaining pressed specimens for window envelopes. On June 14 we had obtained more than 100,000 of these specimens. We were able to press 61,000 at Lakeville from which town we moved to Hastings. We also are pressing specimens at Rochester. Here we were fortunate in having cooperation of the agricultural teacher who arranged space in the high school and obtained three women to assist. The superintendent of the power plant with the Mayo Clinic gave us permission to put the presses on top of hot air blast fans. Here the specimens dry in about 12 hours. Most of the barberries found were heavily rusted.

The first rust on grains was found on barley near barberry at Hastings on June 6. The Leader was unable to find any rust in grain fields in Scott, Rice, LeSueur, or Waseca Counties on June 11 and 12. At Waseca a close examination was made of Little Club, Marquis, Quality, and Ruby wheat in the rust nursery, as well as in the plots of Minharti wheat. Several suspicious looking pustules were collected, but these proved to be leaf rust. With the moist weather which we have been having stem rust ought to be showing up away from barberries.

The boys' and girls' club camps are now in session. We are endeavoring to make as many of these as possible. On June 11 the Leader spoke to 150 boys and girls at Waseca. The boys and girls at this camp were from Steele and Waseca Counties. We are putting special emphasis on the medal contest. On June 6 the Leader spoke to about 1,500 4-H Club members at their short course at University Farm, St. Paul. During the past week a boy from Cannon Falls who had attended this short course, sent in a specimen of common barberry.

The weed meetings are progressing satisfactorily. A farmer who had attended a weed meeting at Waseca reported a barberry location to the county agent. On investigation we found 4 escaped bushes. Two of them were extremely large and heavily rusted. All of this tends to show that our educational and publicity program must be stressed as much as possible.

Iowa - Morrill Hall, Iowa State College, Ames - D. R. Shepherd

The annual conference and school for the Barberry field agents in Iowa was held on June 9 and 10 after which 22 men reported to the field, 8 of them going to Kossuth County to carry on second survey work for barberries, and one squad in Emmet, Dickinson, and Osceola Counties. Third survey work will be done in these 3 counties. One squad of men stopped off at Boone on their way to northwestern Iowa and spent 2 days cleaning up the escaped area near that place. More than 1,000 bushes and approximately 10,000 seedlings were destroyed.

On a trip through the western part of Iowa last week the Barberry Leader observed that the crops were in fairly good condition. The winter wheat was in the flowering stage; the oats observed were either in the joint or in the flower, most of it in the early joint stage. Observations made on this trip revealed only one find of stem rust, in Monona County near Onawa. Only 2 pustules could be found after observations were taken in several parts of a Marquis wheat field. Orange leaf rust could be found in abundance in most any of the wheat fields in the northwestern part of the State.

Heavy rains have fallen in most all parts of Iowa during the last week. In the northwestern part of the State some of the regions report as much as 6 inches of rain. The crops in these areas in many cases were totally washed out. As a whole the State has plenty of moisture at the present time to stimulate the growth of the crops.

About 1,700 people were met in conference at a Farm Bureau picnic held at Algona, in Kossuth County on June 10. Mr. Cassell, the assistant leader, had a bush and other demonstration material on display there. He reports some very favorable contacts. This picnic was especially valuable in that it was held in the center of the area that we are planning to work this summer.

District No. 1 - State College Station, Fargo, N. Dak. - G. C. Mayoue

Montana - On a recent trip to Montana, the District Leader and his assistant found Montana's crop prospects quite good in some areas. Rainfall throughout most of the State was considerably below normal, although it was felt that late rains would do much to restore pasture and crops. A fairly heavy rain during the first week in June ended a dry period for eastern Montana and western North Dakota.

While on this trip, the District Leader and his assistant received excellent cooperation from Montana State College officials and others which made the trip an enjoyable one and materially aided in the satisfactory completion of the work at hand.

North Dakota - The opportunity for publicity offered by the Rust Buster find near Oriska was not overlooked. A picture of Rust Buster Dorothy Hauser pointing to her find of barberry bushes and explaining all about them to her father, and a close-up of her pointing to one of the many sprouts, were sent to some 40 newspapers throughout the State. A story accompanied the mats. This is undoubtedly one of the best pieces of recent State-wide publicity.

Field survey being conducted by 2 agents in McLean County is progressing satisfactorily. The entire field force will not begin work until July 1.

Wyoming - Through the cooperation of Dr. W. G. Solheim, University of Wyoming, Alan Robbins has been chosen as one of the field agents for Wyoming. Mr. Gordon Widdifield, an experienced agent from North Dakota who will act in the capacity of assistant leader, and Mr. Robbins will carry on actual survey work during the summer season.

District No. 2 - Box 66, State College Station, Brookings, S. Dak. -
Raymond O. Bulger

A two-day conference was held at the University of Nebraska, Lincoln, June 9 and 10 after which the agents departed for their respective counties to begin survey.

The cooperation of some able speakers and instructors of the University was secured who imparted valuable information to the men. Besides the general instruction on barberry work, talks were given by W. W. Burr, Dean of Agriculture, Dr. F. D. Keim, Head of the Agronomy Department, W. H. Brokaw, Director of the Extension Service, Dr. G. L. Peltier, Head of the Department of Plant Pathology, Mr. Elton Lux, Extension Editor, and Dr. C. C. Wiggins, Head of the Department of Horticulture.

A similar two-day conference was held at South Dakota State College June 16 and 17. The program consisted of general instruction and included talks given by C. Larsen, Dean of Agriculture, Dr. W. L. Miller, Head of the Botany Department, A. E. Anderson, Director of the Extension Service, W. W. Fowlds, Agronomist, Sam Reck, Extension Editor, P. L. Keene, Horticulturist, Prof. F. T. Hady, Instructor in Farm Economics, and Dr. K. H. Klages, Agronomist.

Both conferences were valuable in that the agents received material which will aid them greatly in their survey problems. Eighteen men are working in Nebraska Counties, and a like number are surveying in South Dakota Counties.

The first pustule of stem rust was found in Nebraska June 8, in the extreme southeastern part of the State. At present (June 18) infection is quite general as far north as Omaha. Orange leaf rust infection ranged from a trace to 20/100 in southern Nebraska. In the northern part it can be found easily in every field, but the spread is much lighter.

In South Dakota the first pustule of stem rust was found June 15 in Aurora County. Orange leaf rust infection is quite general throughout the State with some fields showing a prevalence as high as 25 to 50 per cent. One pustule of leaf rust of rye was found in the southeastern part of South Dakota.

District No. 3. - Agricultural College, Ft. Collins, Colo. - E. A. Lungren

More than 300 planted and escaped barberries have been found in El Paso County, Colo. this season. Many of the bushes were lightly infected. No rust spreads have been observed as yet.

Stem rust infection was found in southeastern Colorado the first week in June. It appeared to be first generation rust evidently blown in from the south or east.

Leaf rust is general but not bad enough to do any damage.

The District Leader was in Lincoln, Nebraska the week of June 8. He attended the conference for barberry field agents and then proceeded to western Nebraska with two men. Temporary headquarters for the next few weeks will be Scotts Bluff, Nebr. The North Platte Valley is a large, wide, irrigated valley extending from the Wyoming line to North Platte, Nebr. A considerable amount of small grain is raised in the valley and from the amount of shrubbery it looks like we will find common barberries. Rust epidemics have occurred in western Nebraska. We may be able to find the source of the rust which was so prevalent out there in 1923.

Circular letters are being mailed to farmers and contacts have been made. The work in that section of the District is started and progressing nicely.

In Colorado we are starting the Rust Busters Club in the boys and girls crop clubs. The materials are being mailed to the club leaders who will present the plan to the members. We hope to get some interesting results on this project.

The Wyoming work will be started July 1. Second survey will start in the irrigated section of the Platte Valley.